

GETTING TO GRIPS WITH THE SUBMARINE CABLE BUSINESS

In 1870 there were serious doubts about keeping the Lowestoft Submarine Cable Depot for the following reasons;

1. With the Submarine Companies maintaining the cables from England to Europe using their Dover Depot and cableship "Lady Carmichael" there was a pressing need for the Monarch to be based along the North West English Coast.
2. Lowestoft Harbour was a difficult port for the Monarch to enter and the cable storage space was almost full.
3. The area of operation for the Monarch was the Irish Sea and around the Scottish Coast, so that a depot in that area would have saved both time and fuel.

A search was made along the north-west coast line of England and of selected areas of Scotland. The requirements were:

1. Easy access for large cableships.
2. Space for at least four cable tanks.
3. Coal bunkering facilities near at hand.
4. Adequate supply of local labour to man the cableship.

No immediately available site was found in the time allowed for the search, however, Barrow-in-Furness was being developed into both a port and an industrial town, and it was hoped that a suitable site might be developed there.

Time was the limiting factor for Monarch had a full programme ahead of her in the Irish Sea area. Fate stepped in and removed the time factor. Whilst the Monarch was on an expedition to repair a cable in the Irish Sea she broke down in the heavy seas, and was towed into the Mersey where she berthed in the West Float, Alfred Dock, Birkenhead. Her general condition (remember she was 40 years old) was very poor and she was condemned as unfit for sea-going duties on 30-Oct-1870. On the 24-July-1871 the Engineer-in-Chief was authorised to have the ship valued and advertised for

sale by private treaty. The Postmaster of Liverpool, (Mr. B. G. Banning) was asked to make arrangements for the ship to be valued and to obtain the Surveyor's opinion if it would be worthwhile for the Department to spend money on the ship and how much would it cost "...to put the engines and hull in a state of repair sufficient to enable her to be used for a year or two to come." The Surveyors chosen were Messrs. C. W. Kellock & Co, Shipbrokers and Valuers, London and Liverpool. They reported on 31-July-1871 "...in our opinion she is not worth the expenditure necessary to efficiently repair her in hull and machinery. In her present condition we consider the present market value of hull and machinery to be from £500 to £600."

Before putting the ship for sale, the cable, stores and working gear had to be removed but removed to where? If these items were taken to Lowestoft they would have to be brought back as and when needed. The suggested site at Barrow-in-Furness was at this time a waste of mud flats and partly blocked waterways. So the Monarch was left with her stores etc. still aboard in charge of a ship-keeper (Mr. John Moore) at Birkenhead.

Meanwhile the contracted cable lengths for the Monarch's programme had been made and were waiting collection from the manufacturers tanks. As most of the cable manufacturers had their own cableships in this period, the Postmaster General chartered these as they became available to lay these cables. Table 1 lists the cableships, the manufacturers, and the cable routes used for this work.

S.S. *Morna* was often chartered for repair work off the west coast of Scotland. No figures are available for the first two years of chartering cableships but the hire of ships and crews for 1873-4 was £10,544. 15s. and for 1874-5 was £12,844. 15s. The extra cost incurred because the cable stores were at Lowestoft instead of on the Thames was £2,778. 17s. 9d. for 1874-5, this extra cost was partly due to the extra voyages needed. Often there was delay at Lowestoft when the ships had to anchor in the roads off Lowestoft and be supplied by barges from the cable depot. The fears that these costs would increase while Lowestoft remained the

TABLE 1.

Cableship	Company	Route	Year
International	India Rubber, Gutta Percha & Telegraph Works Ltd	Dartmouth-Jersey	1871
Dacia	Ditto	Renewed Orkney Shetland No. 1	1881
Caroline	W. T. Henley Telegraph Works Ltd	Jersey-Guernsey-Alderney	1870
		Orkney-Shetland	1871
		Ganovan Bay-Mull	1871
		Islay-Cantyre	1871
		Loch Ewe-Harris	1872
		White Haven-Ramsey	1875
		Also chartered for at least six repairs.	
Le Plata	Ditto	Trecastle-Howth	1871
		Orkney-Shetland	1873
		Knock Bay-Whitehead	1879
		Fishguard-Abermawr	1880

submarine cable depot were born out by the yearly cost returns.

The authorised staff of the Submarine Division in the Engineer-in-Chief's office had an increasing load during those early years. This staff consisted of

1. Electrician and Submarine Superintendent, salary £480 Per annum.
2. Master (vacant from mid 1873), salary £200 x £10 to £300.
3. Inspector and Storekeeper, salary £80 x £5 to £140.
4. Two Assistants.

A number of unestablished minor grades were employed as required as cable hands.

In correspondence concerning the possible shift of the cable depot to a different port the Submarine Superin-

tendent wrote "...as regards cablehands it is well known that the cable firms prefer Lowestoft men to any others when they can get them for the simple reason that they have all been more or less engaged on cable work with Monarch for the last 15 years. They are good boatmen and in our repairing work we must have men of this type... two thirds of the sailors picked up in port know nothing whatever of boatwork and would be quite useless to us. I should also take Lowestoft men and pay their fares to London as being cheaper in the end if it were possible to get them. They know our method of working thoroughly and are not afraid of hard work." A glowing tribute indeed to the worthy men of Lowestoft who continued to serve with the submarine cable staff, in decreasing numbers latterly, until the World War II.

The Submarine Superintendent supervised the laying of cables from chartered ships in person, and was often on the ships repairing the cables. The crews of the chartered ships were supplemented as necessary by the submarine cable

staff who provided the technical and cable expertise. When the submarine staff took passage on a chartered ship they also brought their own boat for inshore work at the cable landings, originally it was one of Monarch's boats removed prior to the sale but this had to be replaced after a few years.

Monarch lay in Birkenhead throughout 1871 and most of 1872 in charge of a shipkeeper, she was deteriorating steadily for lack of maintenance, waiting for the Furness Company to make the site available. In June 1872 the Engineer-in-Chief suggested to the Secretary to the Post Office that the Monarch should be towed to Barrow-in-Furness as a temporary store and to transfer some of the staff from Lowestoft to Barrow to form the new submarine cable depot. Also the Department was paying the Mersey Docks and Harbour Board an annual rent of £56. 17s. 9d. for the storage of the submarine stores taken over from the Magnetic Company and if these stores were taken to Barrow in the Monarch the amount saved would more than pay the cost of towing Monarch to that place. This action was approved and arrangements put in hand.

During August 1872 Mr. Albrow (Inspector and Storekeeper) visited Barrow to ascertain the housing situation, progress in the docks and general position regarding the site of the new Depot and make preliminary arrangements for the proposed moves. He found that there was no house accommodation since the developing industries already there had cornered the market for their own people, often taking leases on all houses up to twenty years ahead. The only way to obtain houses was for the Post Office to buy land and builders to build them (if there were any builders not already fully employed). There were in fact hundreds of men living in temporary wooden sheds waiting for houses to be built so that they could bring their families to the town. The site for the new Depot was very low, partly waterlogged and not ready for building on, there was no quay and a ship could not get near the proposed site at that time. No berths were available anywhere in the docks where cable could be landed. In talking to the local seamen Mr. Albrow found that making the port in bad weather would be difficult and inadvisable at night. Another problem was that great difficulty would

be experienced in obtaining seamen in case of a cable breakdown.

Mr. Albrow's report on this industrial Boom Town makes very gloomy reading. The Submarine Superintendent in forwarding Mr. Albrow's report to the Engineer-in-Chief on 2-Sept-1872 commented that the Furness Company should be told that the Post Office urgently wanted the wharf and ground as specified on the lease. His comments on the other points raised in the report were:

- a He had heard from other sources that there was difficulty in making Barrow under adverse conditions but he felt that a great deal depended upon the power of the ship.
- b The shortage of local seamen could be overcome by keeping a larger establishment, or waiting until seamen could be obtained from other ports.
- c That it was a pity that Mr. Preece (W. H. Preece, Divisional Engineer, Southern Division, and later Engineer-in-Chief) had not obtained fuller information on these matters in the first instance when he visited Barrow.

The Submarine Superintendent concluded that it was not possible to remove men from Lowestoft to Barrow by the end of September as proposed as there was no accommodation available.

The Assistant E-in-C. replied on the 16-Sept-1872 stating that it appeared that a temporary berth for Monarch and an adjacent patch of ground for coiling cable could be arranged. There was also temporary lodgings available for the men. He should, therefore, proceed to Barrow and make the necessary arrangements.

On the 22nd Sept The Submarine Superintendent, reporting from Barrow on conditions there said that the construction of the quay, making up of the ground, the building of the store and the dredging of the basin was unlikely to start until the end of October, but arrangements had been made for a temporary berth for the Monarch and an adjacent plot of land to coil cable on. He emphasised that while Barrow would

make a convenient headquarters being midway between the principal cables operated by the Department, it would be a very expensive place for years to come. There were no idle people, nor were there any sailors or for that matter any cablehands, so it would be necessary to obtain men from Liverpool or Lowestoft. Housing would be very expensive.

Early in October 1874 it was decided that with the great delay at Barrow and little prospect of completion of dockside facilities for some considerable time to come, the cable and stores on board *Monarch* should be taken round to Lowestoft by a sailing vessel, and arrangements were put in hand accordingly. Authority was also given to put the ship up for sale when she had been discharged and of no further use to the Post Office.

The sailing ship "*Elizabeth Charlone*" was chartered for the transport of cable, equipment and stores to Lowestoft. Mr. Albrow who had been sent to Birkenhead to supervise the loading, reported that everything was in a bad state and needed attention. *Monarch* was moved under a crane to lift out the donkey-engine and picking-up drum, all boats were removed, and everything thought to be of value taken. The cargo was insured for the voyage for £6,500. The *Elizabeth Charlone* sailed early in November for Lowestoft and arrived there on 29th. November, the charter cost £205.

The *Monarch* was then sold to H. M. Davies & Co for £650, however, there was one more hold up. The purchasers required that the ships papers be

brought up to date by an endorsement by customs certifying the transfer to the Post Office and an official Bill of Sale prepared. There followed a hectic period while the intricacies of Maritime Law and Practice was clarified and the proper procedures followed.

When the *Monarch* was declared unseaworthy in 1870 an attempt was made to try and replace her and the Admiralty was asked if they had a suitable ship which could be converted to a cables ship. The only vessel available was the H.M.S. *Triton*, though the tonnage and horsepower were suitable it was estimated that it would cost £14,000 to make her seaworthy. It was suggested to the Postmaster General that the Engineer-in-Chief be empowered to look for a suitable commercial vessel, failing which he should prepare an estimate for building a cables ship. Unhappily, such an event was to take many years to achieve and is discussed in a later chapter.

The difficulties at Lowestoft continued to add to the economic burden of providing and maintaining submarine cables around our shores. On 28-April-1875 the PMG was asked by the Secretary to the Telegraph Section if he could approach the Admiralty for a site for a new Depot in Woolwich Dockyard and if one was available, to sell the Lowestoft Depot site. It was considered that the Lowestoft depot site should sell easily as it was a freehold site. The Secretary to the PMG stated that the site was valuable both to the fish merchants and to the Great Eastern Railway Company and should afford keen competition for its possession. The PMG agreed and stated that the building or buying a cables ship should not be lost sight of.

In the Lowestoft Journal for 29-May-1875 we read:

On Tuesday evening, shortly before ten o'clock the inhabitants of this town were alarmed by the hurrying of a fro of numbers of persons and on enquiry the report spread that the Government Electric Telegraph Warehouse, in which a vast mass of valuable materials were stored, was on fire. From our correspondent, who was an eye witness of the scene we have obtained the following:

Capt. Massingham (Harbour Master) stated that as near as he could gather the master of the "*J. P. Frecker*" rushed to his residence in an excited state saying that the premises were on fire. On hastening to the Depot he found volumes of smoke ascending from the upper floor and breaking out between the slates. He at once despatched messengers to the Railway Station for the fire engine kept there,

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to the Lowestoft Fire Brigade, and procured as many hands as he could to assist. One of the servants employed at the stores quickly removed papers and other documents, and Mr. Albrow boldly ascended to the middle floor, but finding the flames had already obtained the mastery, he hastily descended below. By this time one of the engines had commenced working, and shortly before ten o'clock the part of the roof nearest the harbour had fallen in.... All hopes of saving the contents of the building were now extinguished. By half-past ten there must have been thousands of people congregated in the Commercial Road, and on the North and South Quays. About eleven o'clock a new source of excitement appeared in the discharge of a large number of rockets, which to the more youthful part of the spectators was more especially amusing. A rumour then spread among the crowd that some gunpowder was stored on the ground floor, which, as may easily be imagined tended to reduce the number of observers in close proximity to the burning pile to a very small minimum. At twelve o'clock (midnight) the flames had reached their peak, and for some time before and after, the exertions of the firemen of both engines were directed to saving the extensive goods shed, a wooden structure, removed by only a few feet from the scene of the conflagration. In this they were entirely successful, and soon after all fear of further danger was at an end.... Fortunately there was little or no wind at the time, although as the fire progressed, a current naturally set in from the north-west but against which provision had been made. At first vessels on the north side maintained their position but it was soon found advisable to slip their moorings to a safer distance, the shower of sparks constantly falling on the rigging and decks being anything but desirable. We learn that the building contained coils of cable, gutta percha, and pitch, as well as other materials. In the large tank there was a large quantity of cable, besides many tons of new rope, etc. and that the building and contents were insured by the Sun Fire Office to the extent of £14,500.... An official inspection of the ruins took place on Wednesday afternoon, but no certain opinion can be arrived at as regards the cause of the conflagration. The last person, we believe, on the premises was Mr. Albrow, who informs us that the place was locked up at the usual hour, and every precaution was taken against an occurrence of this kind.

The total value of cable, equipment and stores at the Depot was £12,250 of which the stores valued at £6,000 stored outside the building were undamaged.

Rather than rebuild the Lowestoft Depot the Treasury now agreed that a suitable site could be obtained at one of the three Dockyards, Woolwich, Devonport, or Pembroke. Pembroke, whilst near the Irish cables was too distant from London for the purpose of cable repairs on recovered cable, also, it was doubtful if seamen and cablehands would be available when required. The space available at Devonport was not suitable without great expense and Woolwich was selected for the new Depot. The Admiralty was given an outline of the size of the desired site, a vessel drawing 13 ft. of water and 200 ft. long had to be able to lay alongside at all times of the tide, and have the right to take up her berth whenever the operations of the Department requires her to do so. The Depot building had to be within 40 ft. of the waterside so that cable and apparatus could be conveniently loaded or unloaded. Its walls needed to be 14 ft. high, and there would have to be three cable tanks 33 ft. in diameter and 6 ft. deep within the building. At the rear of the building and a little distance away from it would be sited a blacksmith's forge, and a carpenter's shop, also storage space for buoys etc. It took nearly four years to get the details settled then a further two years to get Treasury approval for Depot building works. A conditional Treasury Authority (No. 4,730) dated 18-March-1881 proposed an expenditure of £10,300 for the building, tanks etc. and a payment of £1,200 to the War Department for new buildings to replace an existing shed on the site selected. Authority for the building of the new Depot was given on the 22-March-1881 and building started a month later.

While details of the new Depot were being settled a reorganisation of the Post Office Engineering Department took place. Mr. D. Lumsden was told that he would henceforth bear the title "Submarine Superintendent" and cease to bear the title "Electrician". His status would be equal to that of a Provincial Superintending Engineer.

Mr. W. R. Culley was placed on the same scale as a 2nd. Class Engineer and would be the Assistant Submarine Superintendent.

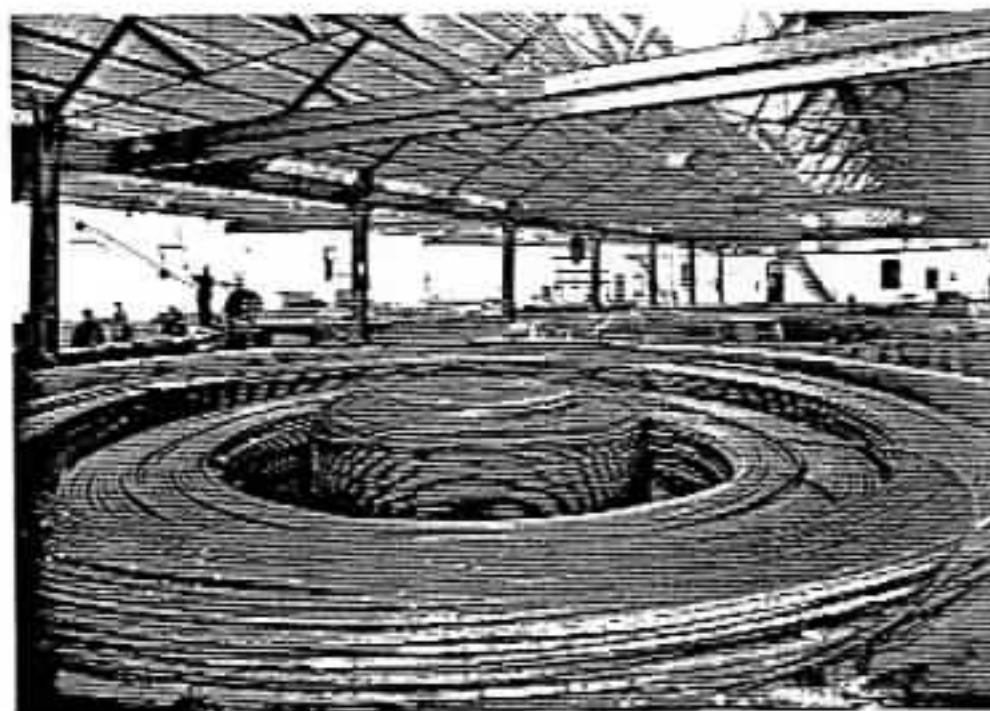
Mr. Lumsden was also promised an office in the new Depot at Woolwich together with the services of a clerk. He had up to that point been managing with the assistance of Mr. Cox (from the Special Technical Branch).

With the planned move of the Depot from Lowestoft to Woolwich a serious staff problem had to be resolved. This can best be explained by first considering the way of life for the Depot staff without a full time cableship.

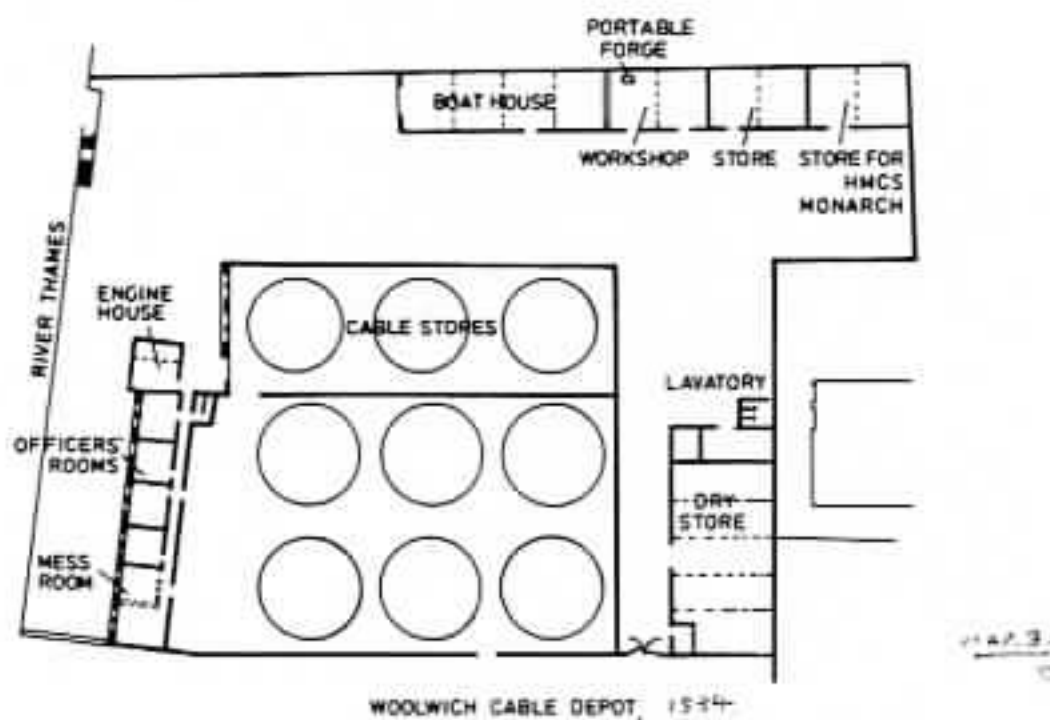
When a cable fault was reported, the Submarine Superintendent chartered a suitable ship which was sent to Lowestoft to pick up the cable required, stores and a working party. This working party was made up from the Depot Inspector, foreman, leading cablehand, five ordinary cablehands, an engineman, a blacksmith and a carpenter. The bow sheaves were fastened in place with

bulks of timber, and the picking up machinery and engine was fastened to the deck. On most expeditions the Submarine Supt. also sailed and took charge of the operations. After the cable had been repaired, the faulty cable and working party were returned to the Lowestoft Depot. If the cable could be repaired in the Depot it would be done by the joiner. Cable not fit for repair would have the core stripped for scrap, or for recovering, dependent upon its condition. It was economic to re-use repaired cable if it could be brought up to the required standard. It was the function of the working party to have this cable in readiness for the next cable fault rather than use new cable. The Inspector was responsible for all work at the Depot, including, the accurate recording of the fault location on charts kept in his office.

In the event of illness or accident to the Inspector there was no one to take his place, it could not be filled by an ordinary Line Inspector as the work was totally different. The Depot Inspector had to be a good sailor and acquainted with ship and boat work. Because of his knowledge he was the man to be sent to Barrow-in-Furness on a number of occasions to check the latest conditions for the proposed new depot there. He was also sent to other ports to seek suitable sites for such a depot. The result was there were a number of absences



◀ Cable-tanks in Woolwich Depot.



from the depot with no one to make decisions or give day to day administration. This resulted in new cable being used for repairs as no faulty cable had been repaired. Another problem was that with only one joiner, if he was absent there could not be any jointing done.

Finally, on 5-Aug-1875 the Submarine Superintendent wrote to the E-IN-C suggesting that with a new depot about to open and the Lowestoft depot soon to close the existing staff be augmented by three more staff consisting of one 1st. Class Inspector, one joiner, and one Cablehand. He pointed out that it would then be possible to have a responsible officer and a joiner left in the depot at all times, and faulty cable could then be dealt with in a more efficient manner.

Clearly he had a high opinion of his staff at the Lowestoft Depot, in spite of the problems there, for he pointed out that they ought to be transferred from Lowestoft to Woolwich and to be allowed extra payments to cover their house rents which would be at least as twice as much as those in the old depot areas. He was also worried that if these skilled men were brought to London, they would soon find out that they could get much higher wages working in the nearby cable factories.

Due to a hold up in getting Treasury approval of the plans for the new Depot, Lowestoft did not finally close till March 1882 when all stores and staff were transferred to Woolwich. The Lowestoft depot was sold at public auction and the reserve price of £2,000 was easily exceeded.

With the concurrence and assistance of the Admiralty and the Thames Conservancy Board, a berth and moorings were provided for a cables ship off Woolwich Dockyard near the Post Office Cable Depot in 1883.

The site was extended in 1890 and two more cable tanks added.